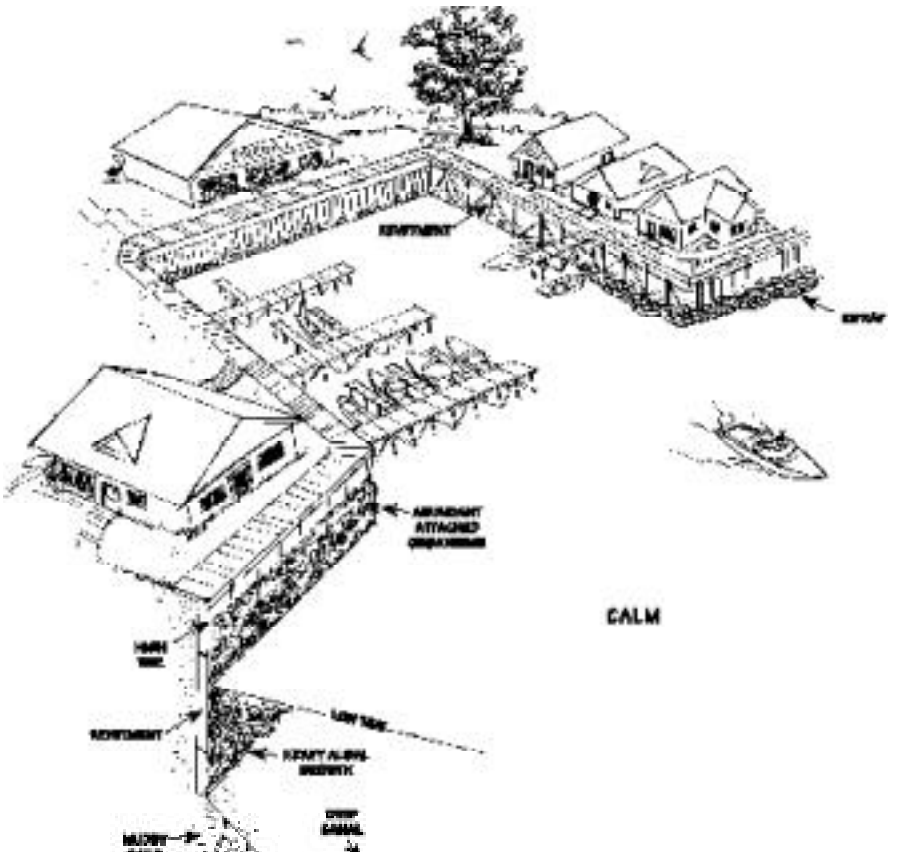
Sheltered, Solid Man-made Structures



Sheltered, Solid Man-made Structures

Description

- These are structures such as seawalls, groins, revetments, piers, and port facilities, constructed of concrete, wood, or metal.
- Most structures are designed to protect a single lot, thus their composition, design, and condition are highly variable.
- Often there is no exposed beach at low tide, but multiple habitats may be present.
- There can be dense attachments of animal and plant life.
- They are common in developed waterfront areas.

Predicted Oil Behavior

- Oil will adhere readily to the rough surface, particularly along the high-tide line, forming a distinct oil band.
- The lower intertidal zone usually stays wet (particularly if algae-covered), preventing oil from adhering to the surface.

Response Considerations

- Seawalls are usually cleaned for aesthetic reasons or to prevent leaching of oil.
- Low- to high-pressure spraying at ambient water temperatures is most effective when the oil is fresh.

Sheltered, Solid Man-made Structures

Oil Category Descriptions

I – Gasoline products
II – Diesel-like products and light crudes
III – Medium grade crudes and intermediate products
IV – Heavy crudes and residual products
V – Non-floating oil products

The following categories are used to compare the relative environmental impact of each response method in the specific environment and habitat for each oil type. The codes in each table mean:

A = The least adverse habitat impact.
B = Some adverse habitat impact.
C = Significant adverse habitat impact.
D = The most adverse habitat impact.
I = Insufficient information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

Response Method	Oil Category I	II	III	IV	V
Natural Recovery	A	A	B	B	B
Barriers/Berms	–	–	–	–	–
Manual Oil Removal/Cleaning	–	B	B	B	B
Mechanical Oil Removal	–	–	–	–	–
Sorbents	–	A	A	B	B
Vacuum	–	–	–	–	–
Debris Removal	–	A	A	A	A
Sediment Reworking/Tilling	–	–	–	–	–
Vegetation Cutting/Removal	–	–	–	–	–
Flooding (deluge)	–	–	–	–	–
Low-pressure, Ambient Water Flushing	–	A	B	C	C
High-pressure, Ambient Water Flushing	–	B	B	C	C
Low-pressure, Hot Water Flushing	–	–	C	C	C
High-pressure, Hot Water Flushing	–	–	C	C	C
Steam Cleaning	–	–	D	D	D
Sand Blasting	–	–	D	D	D
Solidifiers	–	–	–	–	–
Shoreline Cleaning Agents	–	–	B	B	B
Nutrient Enrichment	–	I	I	I	I
Natural Microbe Seeding	–	I	I	I	I
In-situ Burning	–	–	–	–	–

Consult the *Environmental Considerations for Marine Oil Spill Response* document referenced on page 5 before using this table.